CLAIMS

I claim:

1. An electromagnetic induction rotary device comprising a rotable shaft and a fixed stator, said shaft and said stator fabricated of nickel-iron alloy having a predetermined coefficient of thermal expansion, said shaft supported for rotation within said stator on ceramic bearing assemblies, said bearing assemblies having the same said coefficient of thermal expansion.

2. An electromagnetic induction rotary device according to claim 1, said shaft being electrically isolated from said stator.

3. A partial-rotation, torque motor comprising

a reversibly rotable shaft rotationally restricted to less than one full turn, and

a stator and housing assembly within which said shaft is located, said shaft supported by all ceramic ball bearing assemblies, each said assembly including a ceramic inner race mounted on said rotable shaft and a ceramic outer race mounted in said housing and multiple ceramic bearing balls interspersed there between, said shaft said stator and said housing assembly fabricated of a nickel-iron alloy of matched expansion to said ceramic bearing assemblies, said shaft being electrically isolated from said stator and said housing.

4. A partial-rotation, torque motor according to claim 3, for use in a galvanometer scanner.

add a2 add B'